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ABSTRACT

Developed by the National Institute of Mental Health, this booklet offers a programed instruction course on drugs and their effects. The purpose of the text is to learn about specific drugs which are currently being used and abused by a large group of people in our society. Narcotics, stimulants, depressants, hallucinogens, and marihuana are studied. The material is self-teaching, requiring about two hours for completion. Each page is divided into frames containing statements and questions with space provided for written answers. Answers for individual frames are printed opposite the following frame in the answer column to allow for movement down the page without exposing answers to the current question prematurely. A review section is included. (BL)

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WHAT WILL HAPPEN IF...

a programmed instruction course on drugs and their effects

the social seminar

national institute of mental health

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1

how to use this program

If this is the first time you have used a programmed instruction course, you should read these instructions to be sure you understand how to proceed.

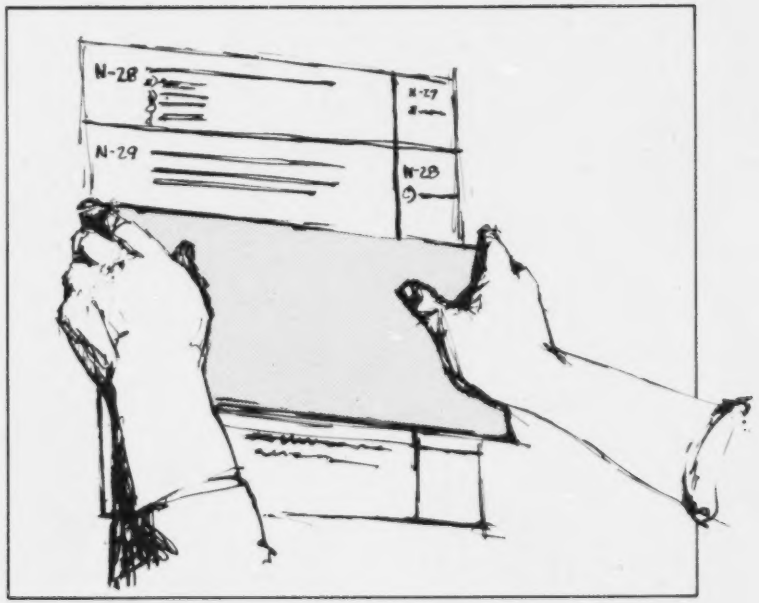
This material is self-teaching and you should work through it at your own pace. The program will probably take you about 2 hours to complete if you go through it in one sitting. There are specified places in the text where you can stop for breaks if you wish.

Each page is divided into parts by horizontal lines. Each part is called a "frame." A frame may have just a few lines or an entire page. It may include a statement and a question, it may include only a statement, or it may include only a question. You will know you have completed a frame when you come to the next horizontal line. All frames are completed on the page on which they begin.

All frames which include a question will provide a space for your written answer. It is strongly recommended that you *WRITE out your answer* in the space provided. These questions are not designed as a test; they are designed to have you respond to the material you are learning. You will retain more information if you follow this process.

The answer to the question for each individual frame is printed directly opposite the following frame in the answer column on the right. For example, the answer to question I–1 is printed in the column to the right of and directly opposite question I–2; the answer to question I–2 is printed to the right of and directly opposite question I–3, and so on. This allows you to move a shield down the page without exposing the answer to the current question prematurely.

While you are working on a frame you should keep all of the remaining data covered. Check each response as you proceed. If you find you are choosing incorrect answers, go back over the textual material. Reread the frames until you understand the correct response.



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part I

introduction: defining our terms

I–1 The purpose of this text is to help you learn about specific drugs which are currently being used and abused by a large group of people in our society.

Before one can discuss the characteristics of specific drugs, however, it is necessary to understand the particular language of the subject matter.

We shall begin, therefore, by defining the relevant terms that will be used throughout the text.

Go on to next frame.

I–2 Each drug we shall discuss can create a specific kind of *dependence*. Such dependence may be only psychological or it may be both psychological and physical.

The nature of dependency for a particular drug is expressed in terms of its _____

and _____ characteristics.

I–1

Go on to next frame.

I–3 Let us examine the characteristics of *psychological dependence*.

The individual who is psychologically dependent on a drug has a strong need to continue taking the drug periodically or continuously. His body does not really need the drug, but he has a craving for it if he doesn't take it. He wants to be in whatever state the drug puts him in.

When an individual feels a strong need to take a chemical substitute periodically or continuously he is said to have a _____.

I–2

physical
psychological
(either order)

I–4 What happens if such a drug is discontinued or denied? If a strong psychological dependence has developed, the individual will undoubtedly seek to get more of it because he feels at a loss without it. If it is permanently denied, he will probably go through a period of readjustment accompanied by some emotional trauma. If the dependence is psychological, and not physical, there will be no physical complications following discontinuance of the drug.

When a drug that produces psychological dependence is discontinued the individual will have to readjust

(physically/psychologically) _____.

I–3

psychological dependence

I–5 A second element of drug dependence is the development of *tolerance*. This means that the body's cells become accustomed to a certain level of drug and no longer respond to that dose level. The dose of the drug must then be increased to achieve the desired effect.

When an individual becomes tolerant to a particular dose of a drug, he must (increase/decrease) the dose to

achieve the desired effects _____.

I–4

psychologically

I–6 An individual *can* develop tolerance to a drug on which he is only psychologically, and not physically, dependent. For example, tolerance to LSD develops rapidly. But there is no evidence that the drug creates physical dependence.

Although an individual is psychologically dependent on a drug, he can develop _____ to it.

I–5

increase

I–7 A third factor in drug use is the development of *physical dependence*. The most reliable criteria of whether a drug produces physical dependence is the appearance of physical *withdrawal* symptoms when the drug is discontinued.

Physical withdrawal symptoms (always, sometimes, never) _____ occur when a drug that has produced physical dependence is discontinued.

I–6

tolerance

I–8 Withdrawal occurs because the continuous administration of a drug has produced certain changes in the body's cells. The body now needs the drug to function in its accustomed fashion.

If the drug is discontinued, the normal functioning of the body is disrupted. The process of withdrawal allows the cells to return to their pre-drugged state and reduces the level of tolerance.

The withdrawal process is a (physical/psychological) _____ readjustment.

I–7

always

I–9 Physical withdrawal does not mean an individual is no longer dependent on a drug. He still must overcome his _____ dependency if it developed.

I–8

physical

I–10 Tolerance is always developed to a drug that produces physical dependence. In addition, psychological dependence can also develop.

I–9

psychological

I–11 *To review,* when an individual experiences a strong desire to continue taking a drug for emotional, rather than physical, reasons we would say that he has developed a _____ dependence on the drug.

I–10

Go on to next frame.

I–12 With regard to a drug that produces *physical dependence* complete the following sentences:

a) Tolerance (always, sometimes, never) _____ develops.

b) There are (always, sometimes, never) _____ physical withdrawal symptoms upon discontinuance.

I–11

psychological

I–13 With regard to a drug that produces *only* psychological dependence, complete the following sentences:

a) Tolerance (always, sometimes, never) _____ develops.

b) There are (always, sometimes, never) _____ physical withdrawal symptoms upon discontinuance.

I–12

a) always

b) always

I–14 Extreme drug dependence would include which of the following?

a) physical dependence

b) psychological dependence

c) development of tolerance

d) withdrawal sickness upon discontinuance

e) psychological trauma upon discontinuance

f) all of the above

I–13

a) sometimes

b) never

I–15 Throughout the text we will refer to the source of specific drugs as being either *natural, synthetic,* or *semi-synthetic.* Natural refers to a drug that is obtained directly from a plant, e.g., marihuana comes from the plant *Cannabis sativa.*

Synthetic drugs are manufactured in the laboratory from their active ingredients. Most of these drugs will have commercial trade names as well as generic names.

Certain drugs fall between these classifications and are called semi-synthetic. For example, morphine is a natural drug obtained directly from the opium poppy. Heroin, however, is derived by treating the morphine chemically. Heroin, therefore, is classified as semi-synthetic.

Classify the following drugs as natural, semi-synthetic, or synthetic.

a) morphine _____

b) marihuana _____

c) heroin _____

d) Seconal _____

I–14

f) all of the above

I–16 There are many possible definitions for the term *drug abuse.*

For example, one individual may define it as taking any drug without medical supervision. Another might say it is any use of an illegal drug. A third might say that society cannot define drug abuse; each person has the right to do what he wants to his body and his mind.

Obviously, there is a wide range of possible definitions in between.

I–15

a) natural
b) natural
c) semi-synthetic
d) synthetic

I–17 In the next few sections, we will discuss the main characteristics of five categories of drugs. In general, the discussion will include the definition, derivation, methods of administration, and effect of each drug.

I–16

Go on to next frame.

GO ON TO NEXT SECTION

part II

narcotics

N–18 A narcotic is a drug that *relieves pain* and *induces sleep*. The narcotic drugs (also called *opiates*) include: *opium* and *morphine*, derived from the opium poppy seed pod; *heroin*, obtained by chemically altering morphine; and various synthetic drugs of similar characteristics such as *methadone*.

Narcotic drugs are defined as those which _____ and _____.

N–19 In this text drugs are classified pharmacologically. However, the Federal drug laws classify a number of drugs according to their potential for abuse, whether they are beneficial and safe for medical treatment and whether they could result in psychological or physical dependence. One example is cocaine, a stimulant which will be discussed in the next chapter. Another is marihuana, discussed in Part VI. Neither cocaine nor marihuana is a narcotic.

N–18

relieve pain
induce sleep
(either order)

N–20 Most of this chapter will be devoted to a discussion of heroin and morphine.

One important difference between the two drugs is in their strength. *Heroin* is from two to six times *stronger* than *morphine*. Since heroin is rarely sold in its pure form, however, the actual strength of any drug sampling depends on how much it has been diluted with additives.

Morphine is (stronger/weaker) _____ than heroin.

N–19

Go on to next frame.

N–21 Secondly, although morphine is prescribed to relieve pain, heroin is not used in medicine. Its use in any situation in the United States other than medical research is illegal.

Label the following statements as *True* or *False:*

a) Morphine is prescribed to relieve pain. _____

b) In its pure form, heroin is stronger than morphine. _____

c) The use of morphine is illegal. _____

N–20

weaker

N–22 *Opiates are depressants.* They depress specific areas of the brain, relieving tension. They also diminish other primary drives such as hunger, thirst, and sex.

The ability to depress specific areas of the brain gives morphine its medical use as an _____

N–21

a) True
b) True
c) False

N–23 Heroin and morphine can be sniffed but they are usually administered by *injection* either just under the skin (called "skin-popping") or directly into a vein (called "mainlining").

The usual spot for injection is the inside of the arm. However, because frequent injections result in noticeable scars, to avoid detection many addicts experiment with different parts of the anatomy, for example, under the tongue or eyelid.

The most common method of heroin administration in the United States is:

a) by tablet

b) by intravenous injection

c) by smoking

d) by sniffing

N–22

analgesic or pain killer

N–24 The addict's "works," or what he needs to give himself an injection, generally include a hypodermic syringe, a spoon, cotton, matches, and a rope or belt. The heroin is mixed into a liquid solution by cooking it on the spoon. It is then strained through the cotton into the syringe. The rope or belt is used to tie off the upper arm, for example, creating pressure and making the vein stand out so it may be easily located.

N–23

b) by intravenous injection

N–25 The heroin "fix" follows a fairly predictable course. Immediately after injection the individual experiences an intense "high" that lasts about 1 minute.

This "high" is sought for its sense of tranquility and euphoria, as well as the feeling of warmth and a tingling sensation in the abdomen said to be similar to orgasm.

A strong desire for a heroin "high" is an indication of _____ dependence.

N–24

Go on to next frame.

N–26 This "high" is usually followed by several hours of drowsiness, accompanied by an inability to concentrate, lessened physical activity, and lethargy.

Most of the time the addict is under the drug's influence, he is "on the nod," in a dreamy state.

This general sleepiness and state of unawareness is caused by the fact that opiates _____ various functions of the brain.

N–25

psychological

N–27 The intense part of the heroin "high" lasts about:

a) a minute

b) an hour

c) 2 hours

d) 8 hours

N–26

depress

N–28 For most of the time an individual is under the effects of a narcotic he will be:

a) noisy and aggressive

b) having hallucinations

c) sleepy

d) in pain

N–27

a) a minute

N–29 One of the most important factors in opiate dependence is the *development* of *tolerance.*

Repeated administration of even small doses leads to increased tolerance. This means the individual has to increase his dosage to achieve the same effects.

As tolerance develops, one needs to use (smaller/the same/larger) _____ doses to achieve the desired effect.

N–28

c) sleepy

N–30 However, when tolerance has developed, the cells have adjusted to the presence of the drug, and require the drug to function normally.

If the user maintains a constant level of the drug in his system, he may be able to function normally and may not feel either the "high" or the drowsiness usually associated with the drug.

In such a situation, the addict may live a normal life and may continue his dependence to avoid going through withdrawal. This presupposes that the individual has the funds to support his habit.

If its discontinuance is followed by withdrawal, we say that heroin has produced _____ dependence.

N–29

larger

N–31 *Methadone* is a synthetic narcotic which has been used as a substitute for heroin in the treatment of opiate dependence. Current research indicates that an addict can be kept comfortable, that is, he will not have withdrawal symptoms, by substituting orally administered methadone for injectable heroin. Besides its use in treatment of withdrawal (detoxification), it can be used in long term treatment and rehabilitation because while on full doses of methadone, the addict apparently does not feel the effects of the "high" of heroin. He also does not experience the lethargy that normally follows the high. However, methadone is still a narcotic and does produce psychological and physical dependence.

A synthetic narcotic used in the treatment of heroin addiction is called _____.

N–30

physical

N–32 Withdrawal from opiate dependence can be a severe process. As we have said, fear of this withdrawal sickness is often a primary cause of continued addiction to heroin. Withdrawal symptoms begin a few hours after the last "fix." They reach their peak in the next 24 to 48 hours and within about 10 days the most severe symptoms disappear.

Once the addict has gone through withdrawal, he is no longer *physically* dependent on the drug. Thus, if he goes back, it is because he is still _____ dependent on it.

N–31

methadone

N–33 The symptoms of withdrawal from opiates depend on the severity of the dependence and the degree of tolerance achieved.

It is usually characterized by: nervousness, anxiety, and sleeplessness; yawning, running nose, hoarseness, and sweating; enlargement of pupils, gooseflesh, and twitching of muscles; diarrhea and abdominal cramps; increase in breathing rate, blood pressure, and temperature; and a feeling of desperation with the obsessive desire to secure more of the drug.

All in all, these symptoms are the opposite of the drugged state after a fix, which is characterized by _____.

N–32

psychologically

N–34 Which of the following are symptoms of opiate withdrawal?

a) drowsiness

b) tension

c) cramps, vomiting, and diarrhea

d) increased breathing rate, blood pressure, and temperature

e) decreased breathing rate, blood pressure, and temperature

f) compulsion to get another fix

N–33

sleepiness,
lethargy
(or equivalent)

N–35 The worst part of the withdrawal period occurs _____ to _____ hours after the last "fix."

N–34
b) tension
c) cramps, vomiting, and diarrhea
d) increased breathing rate, blood-pressure, and temperature
f) compulsion to get another fix

N–36 Withdrawal from heroin usually takes a total of about _____ days to complete.

N–35
24 to 48

N–37 *To review,* opiate dependence is characterized by the development of tolerance, psychological dependence, and physical dependence. The three are interrelated.

Psychologically, the addict may initially seek the "high" or he may be looking for the escape of being "on the nod." However, once he has developed tolerance, he may no longer feel these effects. At this point he may maintain his level of dependence to avoid going through withdrawal.

N–36
10

N–38 We have said that the individual develops a tolerance to heroin and morphine that leads him to take larger and larger doses. However, *tolerance is a reversible process.* If an addict withdraws from his habit, his level of tolerance is reduced.

When an individual goes through withdrawal from opiates his level of tolerance

a) decreases

b) stays the same

c) increases

N–37

Go on to next frame.

N–39 If an individual with reduced tolerance were suddenly to take the same dose his body had become used to before withdrawal, he would suffer the effects of *overdosage.*

Overdosage occurs when the individual takes a dose of a drug greater than that for which he has developed a _____.

N–38

a) decreases

N–40 *Overdosage* of opiates can prove fatal because opiates depress the part of the brain that controls breathing. Therefore, an overdose results in respiratory failure, coma, and finally death.

Overdosage may also occur if an addict is given a purer form of the drug than he has bargained for. Since all heroin traffic is illegal the buyer has no guarantee as to what he is getting. It may not even be heroin.

Overdosage could occur if the addict were suddenly given _____ form of heroin that exceeds his tolerance.

N–39

tolerance

N–41 Overdosage of opiates can occur if the individual's _____ is lower than expected or if the dose taken is _____ than expected.

N–40

a purer

N–42 Overdosage of opiates can prove fatal because they depress the _____ _____ of the brain.

N–41
tolerance

purer

N–43 Opiate dependence is characterized by which of the following?

a) development of tolerance for the drug's effects

b) psychological dependence on the drug's effects

c) withdrawal symptoms upon discontinuance of the drug.

d) all of the above

N–42

respiratory or breathing center

N–44 Opiate addiction does not produce a sense of fellowship and communal sharing reported by some marihuana users, nor a feeling of self-insight, reportedly sought by LSD users. Opiate dependence may lead one to personal neglect and malnutrition as well as to dropping out of productive society. The addict rarely has time to do anything other than look for heroin to feed his habit.

N–43

d) all of the above

N–45 It is unusual for heroin to be shared or given away to one's friends unless a pusher is deliberately trying to hook someone for future business. The cost of heroin prohibits such generosity. An addict must spend between $50 and $200 a day to feed his habit. The high cost of his habit often causes the user to resort to criminal means to obtain money. This may take the form of anything from shoplifting to prostitution to armed robbery. To obtain $100 cash, the addict may have to steal $700 worth of goods.

N–44

Go on to next frame.

N–46 Because in most cases the drug is administered intravaneously, there is great danger of infection, skin abscesses, and hepatitis from poorly sterilized needles.

Some side effects of heroin addiction are _____

_____

_____

_____

N–45

Go on to next frame.

THIS IS THE END OF THE SECTION. IT IS A GOOD TIME TO TAKE A BRIEF REST.

part III

stimulants

S–47 What is a stimulant? You have probably ingested some stimulant today; for example, the *caffeine* from your morning coffee or tea or nicotine from tobacco.

Although *caffeine*, a natural stimulant, may aggravate such conditions as epilepsy, ulcers, and hypertension, the effects of caffeine on the average individual are considered relatively mild.

The effects of *cocaine*, another *natural stimulant*, are not mild however, particularly when it is injected.

It is difficult to categorize the effects of *amphetamines* (synthetic stimulants) because the intensity of the drug's effect is only partially dependent on the dose taken. Individuals taking small, medically prescribed doses have been known to have very intense reactions.

Amphetamines, caffeine, nicotine, and cocaine are all examples of _____.

N–46

malnutrition, dropping out of society, infection (or equivalent)

S–48 Stimulants are so-called because they directly stimulate the *central nervous system*.

Cocaine, a natural stimulant, is obtained from the leaves of the coca bush (Erythoxylon coca), found predominantly in South America. Although it has a limited medical use as a local anesthetic for eye and nose surgery, it is often found on the black market.

NOTE: The illegal use of cocaine is controlled through the Comprehensive Drug Abuse Prevention and Control Act of 1970.

Cocaine has a limited medical use as a _____.

N–47

stimulants

S–49 *Amphetamines* make a person feel full of *energy.* It was for this reason that they were originally given to World War II pilots to keep them alert during long periods of stress.

Amphetamines are currently prescribed for a variety of reasons. For example, they are used to *treat depression, narcolepsy* (uncontrollable attacks of sleep), and hyperactivity in children. They are probably most commonly known as *appetite suppressants.* At one time they were used to treat colds and hay fever because they *shrink the nasal membranes.*

In general, we can say that the effect of amphetamines is quite different from that of narcotics. Whereas a person taking narcotics is usually sleepy and lethargic, someone taking stimulants tends to be _____

_____

N–48

local anesthetic

S–50 The three most common synthetic stimulants are:

Amphetamine, marketed as *Benzedrine* and often called "Bennies";

Dextroamphetamine, marketed as *Dexedrine* and called "Dexies" or "pep pills"; and

Methamphetamine, marketed as *Methedrine* and known as "Speed."

NOTE: We shall continue to use the term "amphetamine" in its more general sense.

S–49

alert, energetic (or equivalent)

S–51 Amphetamines are usually taken in pill or capsule form, except for *Methedrine,* which is also found in crystal or liquid form and is often injected.

What other category of drugs is usually administered by injection? _____

S–50

Go on to next frame.

S–52 Classify each of the following drugs as narcotics or stimulants:

a) cocaine _____

b) methadone _____

c) Dexedrine _____

d) heroin _____

e) amphetamine _____

S–51

narcotics

S–53 Amphetamines (stimulate/depress) _____ the central nervous system.

S–52
a) stimulant
b) narcotic
c) stimulant
d) narcotic
e) stimulant

S–54 For which of the following conditions are amphetamines prescribed?

a) obesity

b) tension

c) depression

d) pain

S–53

stimulate

S–55 Administration of a stimulant by injection produces the most immediate and intense effects. The user is hit with a surge of alertness and energy. This stimulating and exciting "high" is the primary goal sought by those who take stimulants for kicks. Sometimes, the effects may be so intense that the abuser will voluntarily seek sedation.

An injection of stimulants takes effect (faster/slower) _____ than a tablet.

S–54

a) obesity

c) depression

S–56 There are several sources of supply for those in search of synthetic stimulants. Other than legal prescriptions, they may be obtained through fake prescriptions, drugstore robberies, and local pushers. Teenagers often do not have to look further than the home medicine chest for amphetamines. It has been estimated that at least one-third of the eight billion amphetamine tablets legally produced each year wind up in non-medical hands. It is also probable that there is illegal production.

S–55

faster

S–57 Amphetamines, even if taken in prescribed doses, may have serious side effects, including increased heart rate and blood pressure, which cause heart palpitations. Other side effects are often dilated pupils, sweating, and diarrhea.

High doses of stimulants result in extreme tension, loud egoism, talkativeness and nervousness. This is known in slang terminology as being "strung out." "Speed freaks" (those who use Methedrine regularly) often do not sleep or eat for days at a time.

Amphetamines may produce which of the following effects?

a) extreme hunger

b) tension and nervousness

c) enhancement of subjective experience

d) heart palpitations

S–56

Go on to the next frame.

S–58 Very little is known about an individual's predisposition to the above side effects. Research has shown that in some individuals even one amphetamine tablet will make them feel "strung out." Doctors may prescribe such medication without adequate knowledge of whether a patient can take these drugs without such serious side effects occurring.

S–57

b) tension and nervousness

d) heart palpitations

S–59 Unlike narcotics, stimulants *do not usually lead to physical dependency. Chronic low-dose use of* stimulants may lead to *psychological dependence.*

Basically, there are two motivations for stimulant dependence.

(1) First is the individual who originally took amphetamines under doctor's orders. His medical problems may no longer exist, but he continues to use the drug because the state it puts him in has become a way of life. He probably takes small doses and is able to function fairly normally.

(2) Second is the individual who has become psychologically dependent on the drug for its intensely stimulating effects. He wants the "high" he can get from it and continues to take the drug because he does not want to feel the depression that occurs when the drug wears off. This individual may take massive doses and cannot function normally either while on the drug or for the period of time after it is discontinued.

Chronic low dose, nonmedical use of stimulants may result in a (physical/psychological) _____ dependency.

S–58

Go on to next frame.

S–60 *To review,* list at least two physical effects of taking high doses of stimulants.

_____

_____

S–59

psychological

S–61 Shortly after taking cocaine or amphetamines, an individual may become which of the following?

a) tranquil

b) tense

c) drowsy

d) sleepless

S–60

any two: Increased heart rate and blood pressure, dilated pupils, sweating, diarrhea, heart palpitations

S–62 When an individual takes *high doses* of stimulants, he *may develop tolerance*. However, such tolerance usually develops very slowly and only at very high doses.

With respect to stimulants, tolerance (never/sometimes/always) _____ develops.

S–61
b) tense
d) sleepless

S–63 A single large dose or a chronic abuse of stimulants can result in an overdose of the drug in the system. This can lead to a state of *drug psychosis* which is sometimes severe enough to require hospitalization for temporary insanity.

Such a state of psychosis is characterized by *hallucinations* and feelings of *persecution*. Individuals often overestimate their strength and act on these feelings of persecution with extremely aggressive behavior.

These are (physical/psychological) _____ symptoms of overdosage.

S–62
sometimes

S–64 In addition, there have been rare cases where an extreme overdose of stimulants has resulted in death because the body could not handle the effects of the drug.

An overdose of stimulants can lead to which of the following?

a) temporary insanity

b) paralysis

c) death

d) kidney failure

S–63
psychological

S–65 Recent research has indicated that the nature of amphetamine dependence differs depending on the doses that are taken. Since tolerance to high doses develops and withdrawal symptoms have been found to occur, *large amounts of amphetamines are considered to produce physical dependency.*

Physical dependence on amphetamines may develop when _____ doses are taken chronically.

S–64
a) temporary insanity
c) death

S–66 In addition to physical withdrawal symptoms, if an individual has been taking large doses of amphetamines, a deep, and sometimes suicidal depression may result when the drug is discontinued.

Thus both physical and psychological symptoms occur during _____ from amphetamines.

S–65

large

S–67 Label each of the following statements as *True* or *False:*

a) Chronic use of stimulants may lead to physical dependence. _____

b) Chronic use of high doses of stimulants can lead to physical dependence. _____

c) Tolerance never develops from the use of stimulants. _____

d) Chronic use of stimulants leads to psychological dependence. _____

e) A deep depression often follows when one stops taking stimulants. _____

S–66

withdrawal

S–68 *To review,* list three stimulants:

_____

_____

_____

S–67

a) False
b) True
c) False
d) True
e) True

S–69 What is/are the primary medical use/uses of amphetamines?

_____

_____

S–68

caffeine
cocaine
amphetamines
(any order)

S–70 Tolerance (never/sometimes/always) _____ develops in the use of stimulants.

S–69
appetite control; used against fatigue and depression (or equivalent)

S–71 Overdoses of stimulants can result in a drug psychosis. This leads to what kind of behavior? _____

_____

S–70
sometimes

S–72 Psychological withdrawal from stimulants is characterized by a deep _____.

S–71
Temporary psychosis; hallucinations; feelings of persecution

S–73 On the following chart, note whether each characteristic is (always, sometimes, never) developed from the chronic misuse of narcotics and stimulants.

	NARCOTICS	STIMULANTS
a) Physical Dependence		
b) Psychological Dependence		
c) Tolerance		

S–72

depression

END OF SECTION. GO ON TO NEXT SECTION.

part IV

depressants

D–74 *Barbiturates* are the most common of the drugs classified as *depressants, or sedatives.* There are some tranquilizers (*Miltown, Equinal, Valium,* and *Librium,* for example), generally called *minor tranquilizers,* that are also included in this category.

In many ways barbiturates are the most dangerous drugs we shall discuss: they produce a strong psychological and physical dependency; the process of withdrawal is considerably more severe than it is for heroin; and, they may provide the easiest drug route to death. In this country alone, about 3,000 people die each year, intentionally and unintentionally, from barbiturate overdose.

Barbiturates and minor tranquilizers are in the category of drugs called _____.

S–73

a) always, sometimes

b) always, always

c) always, sometimes

D–75 *Barbiturates* are *synthetic* drugs that act to *depress the central nervous system,* thus inducing sleep and reducing anxiety and tension.

This is the opposite of the action of cocaine and amphetamines, which _____ the central nervous system.

D–74

depressants or sedatives

D–76 Barbiturates have many *legitimate medical uses* in addition to the well-known one of *inducing sleep* and *reducing tension;* barbiturates are often used to treat *high blood pressure* and *peptic ulcers.* Some are also used in the treatment of *epilepsy.*

For which of the following purposes are barbiturates prescribed?

a) to induce sleep

b) to depress appetite

c) to relieve pain

d) to treat high blood pressure

D–75

stimulate

D–77 In slang terminology, barbiturates are often referred to by the color of the tablet. For example, among quick starting, short acting barbiturates, sodium pentobarbital *(Nembutal)* is often called a "yellow jacket"; sodium secobarbital *(Seconal)* is sometimes known as a "red devil."

Examples of slow starting, longer acting barbiturates are phenobarbital *(Luminal)*, and amobarbital *(Amytal)* called "blue angels."

Barbiturates are generally taken:

a) intravenously

b) in pill or capsule form

c) in liquid form

D–76

a) to induce sleep

d) to treat high blood pressure

D–78 *To review,* classify the following drugs as narcotics, stimulants, or depressants:

a) morphine _____

b) phenobarbital _____

c) amphetamine _____

d) heroin _____

e) Benzedrine _____

f) Seconal _____

D–77

b) In pill or capsule form

D–79 Barbiturates are often misused because they are easily obtainable and are often taken without adequate medical supervision.

One definition of misuse is simply taking more than is prescribed. We are not referring here to "overdose," (an amount taken that could result in the misuser's death) but to *large doses*. Such doses may result in a state similar to alcohol intoxication, characterized by *staggering walk, slurred speech,* and *poor coordination.* In addition, the individual may be *drowsy, unable to concentrate* and may suffer from *impaired judgement* and *memory.*

An individual suffering from barbiturate intoxication is likely to be accident-prone because of *(list three reasons):* _____

_____

D–78

a) narcotic

b) depressant

c) stimulant

d) narcotic

e) stimulant

f) depressant

D–80 Paradoxically, someone who has taken massive doses of barbiturates may find that he is not relaxed. The drug may have an antagonistic effect, making the individual more tense and jittery. A similar feeling of excitation often occurs from too much alcohol.

An individual who looks and acts drunk but does not have the smell of alcohol on his breath may be suffering from _____.

D–79
poor coordination, impaired judgement and memory, drowsiness, (or equivalent, any order)

D–81 A *second* pattern of misuse involves the *combination* of *barbiturates* and *alcohol.*

Alcohol is chemically and pharmacologically a depressant. Therefore, alcohol acts to intensify the sedative effect of the barbiturates. The two, acting together, may cause an individual to enter a *coma* even when the separate levels of each are within the standard, nontoxic level.

Alcohol (increases/decreases) _____ the effects of barbiturates.

D–80

barbiturate intoxication

D–82 Combining barbiturates with other depressant drugs (such as narcotics, anesthetics, or tranquilizers) will result in the same danger as when barbiturates are combined with:

a) alcohol

b) amphetamines

D–81

increases

D–83 A *third* pattern of barbiturate misuse is sometimes called "the housewife syndrome." This is a cycle of amphetamine-barbiturate usage. A woman takes amphetamines to suppress her appetite, and is overstimulated and jittery at bedtime. Barbiturates are taken to induce sleep. Amphetamines are resumed the next morning both for diet and to overcome the grogginess of the depressant. Such a pattern can lead to the problems of both amphetamine and barbiturate dependency. Of course this pattern may be equally applicable to the husband.

The "housewife syndrome" is a pattern of _____

_____.

D–82

a) alcohol

D–84 Related to the above is the teenage pill-popping party where the individual may not even know what he is taking—"ups," "downs," or both—or how much he is taking. Unfortunately, the source of supply for many of these parties is not the neighborhood pusher, but the home medicine cabinet.

D–83

amphetamine-barbiturate usage

D–85 *To review:* In proper doses, barbiturates are used to help an individual _____.

D–84

Go on to next frame.

D–86 Barbiturates are also sometimes used in the treatment of (name one)_____.

D–85
sleep or
relax

D–87 High doses of barbiturates may lead to a state that resembles _____.

D–86
any one:
high blood
pressure,
peptic ulcer,
epilepsy

D–88 An individual who has combined alcohol and barbiturates may go into a coma because the alcohol _____ the effects of the barbiturates.

D–87
alcohol
intoxication

D–89 Continuing now with some of the most common results of barbiturate misuse: *Barbiturate dependence* is characterized by a *strong psychological and physical dependence* on the drug. It is further characterized by the development of *tolerance.*

As an individual builds tolerance, he will need (smaller, the same, larger) _____ doses of the drug to achieve the same effect.

D–88
increases or
intensifies

D–90 Barbiturate dependence is similar to opiate dependence in many ways. An important difference is in the nature of the withdrawal process.

The pattern of barbiturate withdrawal is as follows:

For the first 8 to 12 hours the individual may appear fine because he is still under the drug's influence. Once the drug wears off, there are signs of increasing nervousness, headache, anxiety, muscle twitching, DT's, weakness, insomnia, nausea, and a sudden drop in blood pressure.

These effects reach their peak in about 14 hours. In the next 2 days, the individual may experience hallucinations, delirium, and finally, convulsions that can be fatal.

Thus, the most critical period during barbiturate withdrawal is:

a) immediately after the final dose

b) about 1 day after the final dose

c) about 2 days after the final dose

D–89
larger

D–91 Therefore, *withdrawal* from barbiturates should be undertaken with *strict medical supervision.* Abruptly discontinuing the drugs may lead to an acute medical emergency. However, withdrawal *can* be accomplished by slowly reversing the procedure by which the individual built up tolerance to the drug in the first place; that is, by *a gradual reduction in dose.* However, the individual might still be psychologically dependent.

Once the individual is no longer physically dependent on the drug, he (is, is not) _____ cured.

D–90

c) about 2 days after the final dose

D–92 To be truly cured, the individual must also overcome his strong psychological dependence on the drug.

D–91
is not

D–93 However, there is a limit to the level of tolerance the body will develop to barbiturates. This upper limit varies from individual to individual. But, once this limit is passed, the individual will suffer from an overdose of barbiturates.

The effects of such an overdose are the same as those resulting from a combination of barbiturates and alcohol or narcotics—that is, the individual may go into a _____.

D–92

Go on to next frame.

D–94 An overdose of barbiturates can lead to coma and death through respiratory arrest.

Such deaths can be traced either to a level of barbiturates higher than the individual's system can support, or to a subtoxic level of barbiturates in combination with _____, _____, or _____.

D–93

coma

D–95 Many deaths traced to barbiturates occur because, as has been said, the drugs impair both the *memory* and judgement of the user.

Thus, the individual sometimes does not remember how many pills he has already taken and keeps taking them until he goes into a coma.

D–94

alcohol, narcotics, tranquilizers, or anesthetics (any order)

D–96 Minor *tranquilizers* are another category of *synthetic drugs* that *calm, relax,* and *diminish anxiety.* They also act to *relax muscles* and may cause drowsiness.

They are similar to barbiturates in effect, and, when taken in therapeutic doses under medical supervision, do not lead to physical dependence.

D–95

Go on to next frame.

D–97 The most commonly prescribed tranquilizers are: *Miltown, Equinal, Librium,* and *Valium.*

These tranquilizers can lead to psychological and physical dependence when misused. In addition, the user develops *tolerance* if they are used too often.

Thus, some tranquilizers can produce the same type of dependency as _____.

D–96

Go on to next frame.

D–98 On the following chart, note whether each characteristic is (always/sometimes/never) developed from the chronic misuse of narcotics, stimulants, and depressants.

	NARCOTICS	STIMULANTS	DEPRESSANTS
a) Physical Dependence			
b) Psychological Dependence			
c) Tolerance			

D–97

barbiturates or opiates

THIS IS THE END OF THE SECTION.
THIS IS A GOOD TIME TO TAKE A BREAK.

part V
hallucinogens

H–99 The category of drugs called *hallucinogens* or *psychedelics* includes such drugs as LSD, peyote, mescaline, psilocybin, STP, DMT, morning glory seeds, and marihuana. In this chapter we shall deal primarily with *LSD* and *mescaline*. The following chapter will be devoted to *marihuana*.

LSD and mescaline are in the classification of drugs called _____.

D–98
a) always, sometimes, always
b) always, always, always
c) always, sometimes, always

H–100 Hallucinogens (or psychedelics) are drugs capable of provoking changes of sensation, thinking, self-awareness, and emotion. The effects vary widely from individual to individual and from one use to the next. They range from pleasant images and feelings to terror and dread.

Hallucinogens provoke changes in _____, _____, _____,

and _____.

H–99

hallucinogens or psychedelics

H–101 LSD lysergic acid diethylamide is synthesized from ergot, a fungus that spoils rye grain. Although it is probably the most widely known hallucinogen, its legal use is restricted to medical research.

LSD is synthesized from _____.

H–100
sensation, thinking, self-awareness, and emotion (any order)

H–102 LSD is a tasteless, odorless, colorless liquid which can be put in sugar cubes, cookies, or crackers. The liquid can also be injected, or taken in tablet or capsule form.

It is (possible, impossible) _____ to tell visibly if a cookie has been impregnated with LSD.

H–101

ergot

H–103 LSD is one of the most potent drugs known. A dose of 25 micrograms (μg's), an amount almost invisible to the naked eye, will produce a mild effect on most people.

Doses of about *100 μg's* are considered average.

LSD is so potent that the amount equivalent to two aspirins will provide about 6,500 average doses. Because of the high potency of LSD, a small variation in dosage may produce a large variation in effect.

H–102

impossible

H–104 The actual physical effects of LSD are well documented.

It produces changes in the body by acting on the *central* and *sympathetic nervous systems*, resulting in increased pulse and heart rate, a rise in blood pressure and temperature, pupil dilation, tremors, sweaty palms, chills, nausea, lack of appetite, etc. In ordinary doses, however, these effects are insignificant.

At ordinary doses, LSD produces minor (physical/psychological) _____ changes.

H–103

Go on to next frame.

H–105 The psychological effects of LSD are considerably more difficult to describe and vary widely from person to person. The *"proper set,"* that is, the *expectations and attitudes of the user and the setting* in which the drug is taken, is of fundamental importance.

Important determinants of how a person reacts to LSD may be his _____.

H–104

physical

H–106 When taken orally, symptoms of the influence of LSD appear in *30 to 45 minutes*. If injected, they appear in *5 to 10 minutes*. An average trip lasts from 6-24 hours, depending on the amount taken. The intensity of the trip is dependent on the amount taken and on the psychological set of the user.

What factors influence the intensity of an LSD trip? _____.

H–105

expectations and environment (or equivalent)

H–107 In general, the LSD experience consists of changes in *perceptions* and *thought*.

Perceptual changes described by users include different perceptions of sight, hearing, touch, body image, and time. Colors may seem to intensify or change; shapes and spatial relationships may seem to pulsate and change in dimension or assume lifelike qualities. Sensitivity to sound increases, but the source of the sound is often elusive.

Changes in *thought* include a free flow of ideas of all kinds so that ordinary, trivial events may assume unusual importance.

H–106

psychological set and dose

H–108 Users of LSD refer to it as a "consciousness-expanding" drug. This is partly because of the effects we have just described. But, in addition, it is because LSD breaks down the defense mechanisms of the individual that serve to shut some things out of his consciousness, and which allow him to choose the bits of information that are allowed to enter.

These defense mechanisms often shut out of our minds things that disturb us. Under the influence of LSD these barriers are removed and a great deal of information about oneself and one's world is brought from the subconscious to the conscious level.

This effect may lead users to feel that:

a) the world is less meaningful

b) they have gained a better understanding of themselves and the world around them

H–107

Go on to next frame.

H–109 This kind of experience may be beneficial to an individual who can cope with the situation. An unstable person, psychologically unprepared to see himself without these defenses, may develop a *psychosis* from the experience.

The individual who has had a bad trip feels alone in the world and becomes frightened. He sometimes is so overwhelmed that he panics because he fears he will never "come down" to reality.

The extreme fright of such an experience may persist and recur for some time after the use of the drug. In addition the individual may experience "flashbacks," which are actual recurrences of the LSD experience.

Which of the other drugs we have discussed may lead to a *drug psychosis?* _____

H–108

b)

they have gained a better understanding of themselves and the world around them

---

H–110 Because of the possibility of "freaking out," people who take LSD often provide themselves with a guide—a friend who is not under the influence of the drug. This guide attempts to ensure that no physical harm comes to the user and will try to "talk him down" if panic sets in. In such a situation the user's judgement is apt to be faulty and he may do hazardous things.

Unfortunately, his friend will not necessarily have the expertise to control the situation.

A drug psychosis may occur as a result of an LSD trip because an unstable individual may not be able to cope with the breakdown of his _____.

H–109

amphetamines

H–111 An individual on an LSD trip may panic because he wonders if he will be able to _____ _____.

H–110

normal defense mechanisms

H–112 It is possible, under medical supervision, to counteract the effects of a bad trip with sedatives and tranquilizers. However, indiscriminate use of drugs to counteract a bad trip may lead to further physical and psychological problems. For example, the use of stimulants or other psychedelic drugs would tend to increase the effects of LSD.

Although certain sedative drugs may help counteract a bad trip, the use of stimulants will _____ it.

H–111

"come down" or return to reality

H–113 *It is possible to develop tolerance* to LSD if the same dose is taken *daily*. The effects of LSD are so intense, however, that people usually have no desire to take this drug more than once a week. If one did take LSD daily, by the fourth day, practically no effects would be noticed. But this tolerance is reversed quickly—usually within 48 hours—if the drug is discontinued.

Therefore, we would say that tolerance to LSD is (rarely/often) _____ developed.

H–112

intensify

H–114 Among habitual users of LSD, *twice a month* usage is considered heavy usage. At this rate, tolerance (is/is not) _____ likely to develop.

H–113
rarely

H–115 *LSD does not produce physical dependence.* Therefore, there are no physical withdrawal symptoms upon discontinuance.

However, "flashbacks"—or recurrences of the drugged state—may persist for months after the drug has been discontinued.

Although there is no evidence of physical withdrawal upon discontinuance of LSD, _____ may occur months after the drug has been used.

H–114
is not

H–116 *To review,* the user of LSD rarely develops tolerance to the drug—and if he does, it is usually reversed in a very short time. Nor does he experience physical withdrawal symptoms since LSD does not lead to physical dependence. However, one may develop a _____ dependence on the effects of the drug.

H–115
flashbacks

H–117 Currently, scientists are not in agreement on the specific long term risks of taking LSD, although many harmful effects are suspected.

Among the issues being debated are the possibility of serious long term mental illness resulting from a bad trip, the possibility of chromosomal damage, and the effects of flashbacks.

Although none of these long term dangers has been conclusively proven, the would-be user of LSD should be aware that they may constitute a serious risk.

H–116
psychological

H–118 An individual may panic during an LSD trip if:

a) he is or feels alone

b) he cannot cope with the effects on the drugs on himself

c) he is afraid he won't be able to come back to reality

d) all of above

H–117

Go on to next frame.

H–119 Peyote, the source of *mescaline*, another hallucinogen, is legally used by the American Indians of the Native American Church of North America in their religious ceremonies. However, any other use, with the exception of medical research, is illegal.

H–118

d) all of above

H–120 Mescaline is derived from the Mexican *peyote cactus*. It is available on the illegal market in a variety of forms ranging from whole or chopped cactus *"buttons"* to capsules of *powder* or vials of *liquid*. It is usually taken orally but may be injected. Mescaline has a characteristic bitter taste so when taken orally it is usually mixed with coffee, tea, milk, or orange juice.

Mescaline is found in three forms: _____, _____, and _____.

H–119

Go on to next frame.

H–121 Although mescaline is about 4,000 times weaker than LSD, in large enough doses it will produce approximately the same effects. Because much lower doses can be taken, there is considerably less risk of having a "bad trip."

The effects of mescaline are most similar to

a) heroin

b) "speed"

c) LSD

d) Miltown

H–120

cactus "buttons," powder, and liquid

H–122 *To review*, people often take LSD because they feel that the changes in their perception caused by the drug help them gain a better understanding of _____

_____.

H–121
c) LSD

H–123 Taking LSD in combination with any other drug is dangerous, particularly if it is taken in combination with stimulants or other psychedelic drugs. These drugs (increase/decrease) _____ the effects of the LSD.

H–122
themselves and the world around them (or equivalent)

H–124 The nature of dependency produced by the chronic use of mescaline is similar to LSD. There is a potential for psychological dependence although there is no evidence of physical dependence developing. Tolerance may develop but it is rare.

With respect to the chronic use of mescaline and LSD label the following statements as *True* or *False:*

a) Physical dependence is produced. _____

b) Psychological dependence is produced. _____

c) Tolerance always develops. _____

H–123
increase

THIS IS THE END OF PART V.

part VI

marihuana

M–125 What is marihuana?

What has motivated an estimated 12 to 20 million people in the United States to try it?

H–124

a) False
b) True
c) False

M–126 Marihuana comes from *Cannabis sativa*, the hemp plant which grows freely as a common weed in many climates and many soils. Pharmacologically it is usually classified as a *mild hallucinogen* but it has also been reported to have sedative or hypnotic qualities.

Pharmacologically, marihuana is classified as a _____.

M–125
Go on to next frame.

M–127 When the cultivated *Cannabis sativa* plant is fully ripe, a sticky, golden yellow resin with a minty fragrance covers its flower clusters and top leaves. It is this *resin* which contains the active ingredients of marihuana, as do the leaves themselves.

Scientists have recently isolated and synthesized one of the active ingredients in the resin. It is called Δ9 tetrahydrocannabinol (THC).

The active ingredients of marihuana are found in the _____ of the *Cannabis sativa* plant.

M–126
hallucinogen

M–128 The potency of the drug depends on the amount of THC in the resin. As with any drug purchased illegally, however, the buyer has no guarantee as to its actual strength.

Hashish comes from the flowering tops of the most potent varieties of the Cannabis plant. It is from five to eight times stronger than marihuana.

Marihuana will produce a (less/more) _____ intense effect than a similar quantity of hashish.

M–127
resin and leaves

M–129 In the United States, marihuana is generally smoked in cigarettes or pipes. The smoke is deeply inhaled and held in the lungs for as long as possible; one cigarette or "joint" is often shared by several people. Marihuana can also be added to food.

Marihuana cigarettes are hand rolled and are smaller than regular cigarettes; the ends of the paper are usually either tucked in or twisted. Tobacco may be mixed with the dried leaves to act as a binder. To slow combustion, the cigarette is licked before lighting it. The smoke given off by these cigarettes has a characteristic odor that resembles the sweet smell of burning grass or rope.

The smoke from marihuana is distinguishable from the smoke of regular tobacco because of its characteristic

_____.

M–128

less

M–130 The effects of marihuana vary greatly from individual to individual. It is estimated that a large proportion of users feel nothing at all, particularly the first time they use the drug. For those who acknowledge the drug's effects, feelings range from depression to excitement, from trust to suspicion, depending on a variety of factors.

The effects of the drug are mediated by psychological and personality differences among individuals and by the user's relationship to others in the room who might be experiencing the same sensations. The effects of the drug are also dependent upon the strength and the amount used and the manner in which it was smoked or ingested.

List three factors that will determine how marihuana affects a particular individual:

_____

_____

_____

M–129

odor

M–131 Below are some of the most common reactions to smoking marihuana.

One generally begins to feel the drug's effects within 5 to 10 minutes after he has begun smoking. Effects may be felt by inhaling from three to a dozen times. There may be an initial feeling of restlessness, accompanied by fear and anxiety. This common experience for the first time user is often alleviated if supportive friends are present. Because the drug puts most individuals in a highly suggestible state of mind, they can usually be talked out of their fears. It is unusual for such paranoid feelings to recur with subsequent usage unless the individual has deep-seated personality problems.

After inhaling six times on a marihuana cigarette, one is likely to start feeling its effects:

a) immediately

b) within 10 minutes

c) within a half hour

M–130

Any three or equivalent: personality, strength, dose, setting

---

M–132 Feelings of _____ are likely to occur the first time one experiences the effects of marihuana.

M–131

b) within 10 minute

M–133 This first period is followed shortly by a feeling of euphoria. Physically, there is a feeling of lightheadedness and, mentally, a heightened perception of even the most simple and familiar objects, although the exact nature of the perception may not be recalled once the drug's effects have worn off. Uncontrolled laughter often occurs, brought on for no apparent reason. Minor hallucinations or delusions may occur depending on the potency of the drug.

Psychotic reactions due to the influence of marihuana are extremely rare—although not unheard of—even in fairly unstable individuals.

Which of the following are characteristic effects of marihuana?

a) shortness of breath

b) euphoria

c) heart palpitations

d) minor hallucinations

M–132

fear and anxiety

M–134 The sense of time and space frequently becomes distorted. Hence, activities which require good judgement of time and space, such as driving, should be avoided. Tasks requiring any amount of concentration, such as reading, will also be difficult.

Driving while under the effects of marihuana should be avoided because the drug impairs the individual's sense of _____ and _____.

M–133

b) euphoria

d) minor hallucinations

M–135 The effects of marihuana last from *2 to 4 hours*, depending on the strength and amount of the drug smoked. The user then falls into a dreamless sleep and wakes without a hangover.

In general, the effects of marihuana are (calming/energizing) _____.

M–134

time and space (either order)

M–136 Marihuana does not incite people to aggressive or violent behavior. Usually it results in a lethargy not conducive to physical activity. There is no evidence that marihuana either increases or impairs sexual desire or powers.

Thus, any release of inhibitions under the influence of marihuana tends to be (physical/verbal) _____.

M–135

calming

M–137 *To review,* sensations that characterize use of marihuana include which of the following?

a) feeling of increased physical strength

b) poor judgment and an inability to concentrate

c) heightened perception

d) increased alertness and energy

e) sense of euphoria

f) distorted sense of space and time

g) all of above

M–136

verbal

M–138 In addition, when under the influence of marihuana, the individual may experience delusions and _____.

M–137

b) poor judgment and an inability to concentrate

c) heightened perception

e) sense of euphoria

f) distorted sense of space and time

M–139 The effects of marihuana:

a) are virtually the same with all users

b) last for several days

c) vary greatly from individual to individual

d) cannot at all be defined

M–138

mild hallucinations

M–140 The effects of smoked marihuana usually last about:

a) 2 to 4 hours

b) 10 hours

c) impossible to determine

M–139

c) vary greatly from individual to individual

M–141 Scientists believe that marihuana quickly enters the *bloodstream* and acts on the *brain* and the *nervous system*. As yet, however, they don't know exactly how it works.

The short term physical effects of smoking marihuana are: reddening of the eyes, increased pulse rate, and dryness of the mouth and throat.

More subjective reports also include a great thirst and hunger and a greater appreciation for food.

Long time heavy users of marihuana sometimes develop a chronic bronchial cough.

M–140

a) 2 to 4 hours

M–142 There is no evidence that marihuana produces physical dependence. Neither is there any evidence that it will lead the user to take other stronger drugs.

As with almost any drug, one can develop a psychological dependence on marihuana. Many people find the experience pleasurable and use the drug periodically to relax and achieve a mild high. An individual who uses the drug chronically, however, may just want to escape normal life stresses or to treat his personality problems. Such people are generally called "potheads."

Chronic use of marihuana may lead to a (physical/psychological) _____ dependency.

M–141

Go on to next frame.

M–143 Which of the following are true concerning marihuana?

a) It is physically addicting.

b) It almost always leads to use of stronger drugs.

c) It may lead to psychological dependence.

d) All of above.

M–142

psychological

M–144 *To review*, marihuana is derived from the _____ plant.

M–143

c) It may lead to psychological dependence.

M–145 Marihuana's common effects are a feeling of a _____

and a feeling of heightened _____.

M–144
hemp or
Cannabis
sativa

M–146 Marihuana users are likely to feel which of the following:

a) aggressive

b) violent

c) slightly lethargic

d) hungry and thirsty

M–145
distorted sense of
space and time
perception

47

M–147 If, as has been said, there are no proven harmful effects in the occasional use of marihuana, what, then, is the danger?

1) It is still not known for sure what all the long term effects of using marihuana are. Nor is it known what changes the occasional user into the chronic user.

2) Chronic use of marihuana, especially by teenagers, can be harmful if it is used to escape reality: the individual often does not learn the necessary skills for living.

3) Marihuana is classified as an illegal drug and (as of the publication of this text) the use, sale, and possession of marihuana is a felony in most States. The long term implications of felonious arrest are obvious.

M–146

c) slightly lethargic
d) hungry and
thirsty

THIS IS THE END OF PART VI. PART VII IS A REVIEW OF ALL THE MATERIAL THAT HAS BEEN COVERED. YOU MAY WISH TO TAKE A BREAK OR LOOK OVER THE TEXT BEFORE YOU BEGIN THE REVIEW.

part VII
review

R–148 At the beginning of this course the difficulty of defining the term drug abuse was discussed. Now that you are near the end of the program, please spend a few minutes considering what factors determine whether or not a drug is being abused.

You should now be able to write your own definition of drug abuse.

Drug abuse is _____

_____

_____

_____

_____

M–147

Go on to next frame.

R–149 The rest of this section will review the material covered in Parts I–VI. Refer back to the original sections if you have difficulty.

Classify the following drugs as narcotics, stimulants, or depressants:

a) morphine _____

b) Benzedrine _____

c) amphetamine _____

d) barbiturate _____

e) heroin _____

f) Seconal _____

R–148

Go on to next frame.

R–150 Narcotics (depress/stimulate) _____ the nervous system.

R–149

a) narcotic
b) stimulant
c) stimulant
d) depressant
e) narcotic
f) depressant

R–151 Opiate dependence is characterized by which of the following?

a) heart disease
b) development of tolerance to drug's effects
c) hallucinations
d) desire for the drug's effects
e) withdrawal symptoms upon discontinuance of drugs

R–150

depress

R–152 Amphetamines (stimulate/depress) _____ the central nervous system.

R–151

b) development of tolerance to drug's affects
d) desire for the drug's effects
e) withdrawal symptoms upon discontinuance of drugs

R–153 For which of the following medical problems are amphetamines prescribed?

a) obesity
b) tension
c) fatigue
d) pain

R–152
stimulate

R–154 With regard to stimulants, label each of the following statements as *True* or *False:*

a) Chronic low dose use of stimulants leads to physical dependence. _____
b) Tolerance may develop when large doses of amphetamines are taken. _____
c) Chronic use of stimulants may lead to psychological dependence. _____
d) A deep depression may follow the discontinuance of stimulants. _____

R–153

a) obesity
c) fatigue

R–155 For which of the following are barbiturates prescribed?

a) to induce sleep
b) to depress appetite
c) to relieve pain
d) to treat high blood pressure

R–154
a) False
b) True
c) True
d) True

R–156 Alcohol (increases/decreases) _____ the effects of barbiturates.

R–155
a) to induce sleep
d) to treat high blood pressure

R–157 With respect to barbiturates, label the following statements as *True* or *False:*

a) Chronic use leads to physical dependence. _____

b) Tolerance rarely develops. _____

c) Withdrawal symptoms are mild. _____

d) Overdosage can cause death. _____

R–156
increases

R–158 Withdrawal from barbiturates is characterized by which of the following symptoms?

a) prolonged sleep

b) insomnia

c) hallucinations and delirium

d) lethargy

R–157
a) True
b) False
c) False
d) True

R–159 With respect to continued use of LSD, label the following statements as *True* or *False:*

a) Physical dependence may develop. _____

b) Psychological dependence may develop. _____

c) Tolerance may develop. _____

d) Physical withdrawal symptoms may develop upon discontinuance. _____

R–158

b) insomnia

c) hallucinations and delirium

R–160 LSD (breaks down/intensifies) _____ normal defense mechanisms.

R–159

a) False

b) True

c) True

d) False

R–161 Although the long term complications of LSD have not been confirmed, which of the following constitutes a serious risk?

a) severe physical dependence

b) recurrent hallucinations days, weeks, and months after ingestion

c) kidney malfunction

R–160

breaks down

R–162 The effects of marihuana:

a) are virtually the same with all users

b) last for several days

c) vary greatly from individual to individual

d) cannot at all be defined

R–161

b) recurrent hallucinations days, weeks, and months after ingestion

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R–163 With respect to marihuana, label the following statements *True* or *False:*

a) It leads to physical dependence. _____

b) It almost always leads to use of stronger drugs. _____

c) Tolerance to the drug quickly develops. _____

R–162

c) vary greatly from individual to individual

R–163

a) False

b) False

c) False

THIS IS THE END OF THE REVIEW SECTION.

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